

Patent Claims

1. A guide rail (1) of a linear guide, on which a guide carriage (2) can be mounted longitudinally displaceably, the guide rail (1) having an underside, by means of which it can be arranged on a mounting surface (3), and two opposite longitudinal sides which are provided with running tracks (8), rail parts (10) of the guide rail (1) which are arranged one behind the other being connected to one another by means of connecting elements (13, 21), **characterized** in that a tension element (19a) is provided in order to brace the connected rail parts (10) with respect to one another.
- 15 2. The guide rail as claimed in claim 1, in which two rail parts (10) arranged adjacent to one another can be pressed with their mutually confronting end faces (12) against one another by means of the tension element (19a).
- 20 3. The guide rail as claimed in claim 1, in which the tension element (19a) can be actuated from a top side of the guide rail (1) which lies opposite the underside.
- 25 4. The guide rail as claimed in claim 1, in which the connecting element (21) additionally has a joint (22), the joint axis of which is arranged transversely to the longitudinal axis of the guide rail (1).
- 30 5. The guide rail as claimed in claim 1, in which the running tracks (8) are formed on running wires (6), the rolling bodies being formed by running rollers (9) which roll on the running wires (6).
- 35 6. The guide rail as claimed in claim 1, in which the running tracks are formed by ball grooves which are formed on the guide rail and on which balls rotating endlessly in the guide carriage roll.

7. The guide rail as claimed in claim 1, in which the running tracks are formed by planar running surfaces which are formed on the guide rail and on which rollers 5 rotating endlessly in the guide carriage roll.

8. A method for aligning and fixing rail parts (10), arranged adjacently to one another, of the guide rail (1) as claimed in claim 1 according to the following 10 steps:

- connection of two rail parts (10) arranged adjacently to one another by means of the connecting element (13, 21),
- arrangement of the rail parts (10) with their underside on the mounting surface (3), insofar as this has not already taken place before the abovementioned step,
- actuation of the tension element (19a) until the end faces of the two ends of the rail parts are pressed against one another to an extent such that displacements of the rail parts (10) by the application of an actuating force are still possible in order to align the rail parts (10) with one another,
- placing of a test gage onto the guide rail (1), said test gage bearing with test surfaces both against the running tracks (8) of one rail part (10) and against the running tracks (8) of the other rail part (10),
- if appropriate, renewed actuation of the tension element (19a), with the result that the rail parts (10) adjacent to one another are satisfactorily fixed in their aligned position with respect to one another,
- fastening of the guide rail (1) to a connection part (4) by means of fastening elements.

9. The method as claimed in claim 8, in which the test gage is formed by the guide carriage (2) the

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rolling bodies of which are provided with rolling surfaces which form the test surfaces.